this group of dermatoses is still largely in a state of descriptive study and recording of clinical entities. The stage of final classification and synthesis is still to be looked forward to.

Yet the clinical significance of lesions of the tongue is tremendous. It is sufficient to recall that some of the most serious systemic dermatoses may appear first as the lesions of the tongue. Thus, superficial erosions and ulcerations of the tongue may be the first clinical manifestation of latent leukemia: similarly recurrent minute blisters and sharply circumscribed denuded patches on the tongue may be the first symptom of impending pemphigus long before any skin lesions make their appearance.

Much of the pathogenesis of the lesions of the tongue is still unknown. Taking even so simple looking lesions as common canker sores, we do not know whether they are of allergic, microbic or metabolic origin. Differential diagnosis of the lesions of the tongue is much more difficult than of the skin lesions because of the different tintorial background which hampers correct color perception.

Therapeutics of the lesions of the tongue lag far behind in efficiency in comparison with skin lesions.

One of the most intractable and common lesions of the tongue is leukoplakia. In these lesions I consider electrodesiccation the best "all around" method of treatment. A new promising vista is opened by the recently introduced modality of grenz rays. In one case at least, I was fortunate to obtain a complete healing of a large ulcerated patch of leukoplakia from an erythema dose of grenz rays.

In a large number of benign papillomata so often seen on the tongue, and even of frank malignancy, I regard electrodesiccation as the method of choice, with the subsequent use of radium if necessary.

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HARRY E. ALDERSON, M. D. (490 Post Street, San Francisco).—The subject presented by Doctor Lindsay is one that should be discussed more often at meetings. We frequently see these various mucous membrane lesions wrongly diagnosed. Too often snap diagnoses are made by overconfident specialists after a brief inspection of the mouth only. The resemblance between some types of leukoplakia and lichen planus is often so close that no one has the right to make an offhand diagnosis of these conditions. Complete dermatological inspections, including physical and laboratory examinations at times, are necessary to establish the diagnosis.

As for the therapeutic test in cases with lesions simulating carcinoma and lues of the buccal mucosa it must be remembered that arsenic is an epithelial stimulant and, therefore, mercury would be preferable. I have seen two patients with lues and carcinoma of the tongue coexisting who were given arsphenamin followed by marked acceleration of the growth of the carcinomata. One should not waste much time, however, testing for the effects of drugs, for the loss of two or three weeks when radium or surgery might have been applied may be fatal for the patient.

As suggested by the author, roentgen therapy to the mouth is not so difficult to apply as some imagine. But this or any other form of therapy should not be administered before a positive diagnosis is made. Too many x-ray technicians are blindly treating dermatological conditions without really knowing what they are treating. They are very much in the position of druggists, who because they dispense for so many patients yield to the temptation to prescribe for symptoms.

We have had several cases of black hairy tongue and one of white hairy tongue. In both cases Doctor Way has been able to obtain and grow monilia, apparently the main etiological factor.

❦

DOCTOR LINDSAY (Closing).—Time limit on such a paper prevented me from including data as to the efficacy as well as safety of the use of ultra-violet ray in superficial lesions of the lips such as herpes and canker sores. Ultra-violet ray is also useful in hastening the cure of lesions of stomatitis upon the tongue.

I fully appreciate Doctor Alderson's contention that a definite diagnosis should be made before x-rays are employed in treatment of any lesion whether of mucous membranes or other parts of the body, and its use and the intensity of dosage should be carefully considered before treatment is started.

Allergic reaction of an individual to nigerian nuts, known as "nigger toes," was brought to my notice by a young lieutenant in the Canadian army who had the most intense swelling of the lips and tongue if he but bit into a nut of this kind. Reaction would take place in a very few minutes.

One particular brand of tooth paste has been called to my attention four times. It produces a minute vesicular rash on the insides of the lips of susceptible individuals. Relief is rapid once the patient changes to a potassium chlorate type of tooth paste.

Desiccation is useful for the treatment of papillomata of the tongue and I have used it with success in treating limited areas of leukoplakia, but of course it has its limitations. The cautery has its advocates for leukoplakia also. My object in emphasizing x-ray therapy of lesions of the tongue is that I am under the impression that this valuable modality could be used to advantage in many instances where other methods not more efficacious and decidedly more painful are used.

MISSED INTRA-OCULAR FOREIGN BODIES*

REPORT OF CASES

By BARTON J. POWELL, M. D.
Stockton

IN the mining districts of northern California, injuries to the eyes from foreign bodies frequently occur. Formerly many eyes were lost and many unfortunates went through life blind. With modern methods, such as the magnet and ophthalmoscope, this loss of vision has been greatly reduced. So much has been published on this subject that it is chiefly the purpose of this paper to report some cases of missed intra-ocular foreign bodies.

LITERATURE

From the literature on foreign bodies, I shall take time to quote only briefly. The first recorded localization of foreign bodies in the eye is said to have been made by Dr. Charles H. Williams and Dr. Francis H. Williams of Boston, June 5, 1896, and by Dr. William M. Sweet of Philadelphia in 1898. Derby[1] says, "In every injury to the eye the possibility of an intra-ocular foreign body should be considered. Never depend on the history given by the patient." It is possible to locate and remove one foreign body from the eye and leave another undetected. Cases of this kind have been reported where a piece of steel was removed from the cornea and later a piece from the lens.[2] According to Fuchs,[3] "If there is a foreign body in the eye which cannot be removed at once, the eye is almost always lost"; also in stating the prognosis, "The danger which threatens the other eye because of sympathetic

* Chairman's address, Eye, Ear, Nose and Throat Section of the California Medical Association at the fifty-ninth annual session, Del Monte, April 28 to May 1, 1930.

inflammation must not be forgotten. After an unsuccessful attempt to remove a foreign body, the eye must be considered a constant source of danger to its fellow. This applies particularly when the foreign body is located in the posterior chamber and especially if it is copper." If the patient's intellect is such, however, that the risk can be understood, and an oculist is accessible, such an eye, if quiescent, can be left *in situ*. Recently a patient, an intelligent business man, was brought to our office with a number six chilled shot, received while duck hunting, which was located posteriorly imbedded in the choroid. The eye is quiescent and under observation.

TOLERANCE OF EYE TO FOREIGN BODIES

It is interesting to note in this connection some cases of unusual toleration of foreign bodies. Herman Knapp [4] reports that foreign bodies have remained in the eye and become encysted, as in the case of a man who had a piece of glass in the vitreous for eight years, and another who had a piece of brass for four years. Walter Scott Franklin and Frederick C. Cordes report a case of an intra-ocular foreign body of forty-six years' duration where no attempt had been made to ascertain its location. After enucleation, the foreign body proved to be a piece of copper three millimeters square. Adroque and Crocco [5] of Buenos Ayres relate that an iron splinter which had been in the anterior chamber of a recruit's eye since childhood seemed so perfectly tolerated that the recruit was accepted without any attempt to remove the foreign body. A. E. Bulson, Jr.,[6] reports many cases of tolerance to foreign bodies within the posterior segment of the eye, and in the discussion Dr. Lloyd Mills of Los Angeles stated: "Our conception of sympathetic ophthalmia in relation to retained foreign bodies is to a large extent based on the faulty German statistics made as a result of the Franco-Prussian War in 1870. In that report approximately 100 per cent of cases of sympathetic ophthalmia were stated to be the result of injuries of this sort. During the first year of the war, study of these cases up to that time showed that the original statistics were entirely incorrect." There had been many cases of retention of multiple foreign bodies in the posterior segment of both eyes with reasonably good sight. At that time he made a prediction that we should have to change our attitude toward retained foreign bodies. He further states, "I have seen a number of cases in which several multiple foreign bodies have been retained with fairly good vision"; quoting Dr. George E. DeSchweinitz,[7] "While foreign bodies in the background of the eye may be tolerated for a long period of time, with retention of good vision, they never can be trusted and are liable to cause degenerative changes." Parsons [8] says that in rare cases foreign bodies in the vitreous may be encapsulated and remain indefinitely without setting up any serious changes. But unfortunately there are few late histories of these cases. Certainly in a large number deterioration of vision occurred, and even loss of sight. These are the usual sequelae.

As the nearest oculist to the lumber camps and mines in one of California's mining districts, I have seen some interesting cases of missed foreign bodies, but I wish to cite only a few.

REPORT OF CASES

CASE 1.—C. A. G., laborer, twenty-six years of age, working at Hetch Hetchy for the San Francisco water system, gave the following history: July 8, 1928, was hit in the left eye by a piece of rock; received attention at the company hospital in the mountains for three weeks; no x-ray taken. He was referred to the writer August 2, 1928, three weeks later. Examination: Vision of the right eye, the uninjured eye, 20/200. Patient stated he had always realized that the vision in this eye was not acute, and in shooting a gun he had shot left-handed. Vision in the right eye, the injured eye, was to light only. With the aid of the Sweet localizer, a foreign body was localized in the vitreous and proved to be a piece of steel 3 x 3 x 1½ millimeters, notwithstanding the only history of injury available was of having been struck by a piece of rock. The steel was removed with the giant magnet through a scleral opening. On April 3, 1929, nine months afterward, vision in the right eye, with a plus $\frac{1.50}{0.50}$, 90 degrees, was 20/70. With a plus 0.50, cyl. 180 degrees, the vision of the injured eye was 20/100. The patient has experienced no difficulty and will probably continue to have vision sufficient for ordinary laboring purposes.

* * *

CASE 2.—This I consider a very unusual case. J. B. S., twenty-nine years of age, employed by a lumber company in Tuolumne County, gave the following history: The right eye had been inflamed for two weeks before consulting me, and he had attributed it to irritation of cedar-wood dust. Examination on July 2, 1926, showed vision in the right eye of fingers at one foot, left eye 20/15. There was a pronounced keratitis which obscured any vision into the interior of the eye; Wassermann negative, x-ray of teeth negative. He was returned to the company hospital and, in addition to treatment of the eye, mercurial inunctions were advised. On August 6 he was returned to me and there was no improvement noted in the eye condition. In reviewing the history again with the patient, it was ascertained that there were numerous small bits of foreign bodies in the eye at the time he came in contact with the cedar dust. Patient seemed stunned at the time, but continued to work for a week. He stated that during all this time he had no pain. At times the eye was slightly tender and there was no vision. As the foreign material hit him with some force as it descended from the waste chute, the possibility was considered of there being some small steel filings from the loose strips of an old steel cable. X-ray was taken and a foreign body located 32 millimeters posterior, 15 millimeters above, and 25 millimeters to the temporal side from the center of the cornea. The size of the body was 3 x 1 x 1 millimeters. The magnet was negative. From the measurement you will note that the foreign body was posterior to the eyeball. On August 25, some eight weeks after the accident, there was a general panophthalmitis and the eye was enucleated. The foreign body was not recovered.

* * *

CASE 3.—G. D., laborer, twenty-four years of age, employed in the mountain district of Tuolumne County. On September 26, 1926, he was struck by a piece of rock; no particular pain; treated at the

emergency hospital in the mountains for contusion from September 26 to October 18, when he was referred to me. Examination showed vision of right eye nil, left eye 20/20. With the aid of the Sweet localizer a foreign body 4 x 4 x 4 millimeters was located eight millimeters back to the center of the cornea, one millimeter below and one-half millimeter to the nasal side. Under a general anesthetic the usual scleral incision was made and no difficulty experienced in removing the foreign body, which proved to be steel. On December 6, 1926, the vision of the right eye was perception of light; no pain, pupillary reaction sluggish, detached retina; left eye 20/20, Jaeger 1. In this case there was no vision from the date of the accident, but with the foreign body removed the danger of sympathetic ophthalmia was avoided and the cosmetic effect assured.

* * *

CASE 4.—J. A. F., mechanic, twenty-four years of age, living in Turlock. Patient reported October 24, 1923, stating that six days previously, while chipping hard steel, a piece hit the left eye. He was seen by a local physician; no x-ray taken; given conservative treatment. When first seen by me he had a corneal scar and traumatic cataract. The giant magnet was tried for diagnostic purposes and a sliver of steel was immediately drawn into the anterior chamber and was removed through the corneal scar.

In these and many other cases which have come under my observation, I realize each day how much oculists owe to Dr. William M. Sweet for his excellent localization apparatus. If oculists would follow this method and make use also of the giant magnet of the Hobbs type and in some cases a portable magnet, intra-ocular foreign bodies would be more readily located and fewer of the obscure type would be missed.

To summarize, the oculist must bear in mind these points:

1. According to the advice of such authorities as DeSchweinitz and Parsons, intra-ocular foreign bodies may at any time cause serious disturbances.

2. The history given by a patient with an eye injury can never be relied upon. Experience has proved that very often a patient does not know what really happened to his eye.

3. The safe procedure is a systematic examination of all cases for missed intra-ocular foreign bodies.

4. There should be frequent use of the magnet and x-ray, not only to detect the presence of a foreign body, but also as a safeguard against probable charges of malpractice and neglect.

And, lastly, make intelligent use of that most valuable localization apparatus, perfected by that grand old master, the late William M. Sweet.

Medico-Dental Building.

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THE SYPHILITIC KIDNEY*

REPORT OF CASES

By IRVING BANCROFT, M. D.
Los Angeles

DISCUSSION *by Harry E. Alderson, M.D., San Francisco; Henry H. Lissner, M.D., Los Angeles; George D. Culver, M.D., San Francisco.*

SYPHILIS, either the so-called hereditary form or the acquired form, is at first a definite septicemia. That is, the spirochetae circulate in the blood and, as the blood is definitely antagonistic to their continued presence, they quickly enter the blood vessel walls and perivascular spaces and there are quickly surrounded by groups of lymphoid and plasma cells. These groups of primitive cells when located in the kidney soon press on the highly organized secreting cells and there is a definite loss of function of the kidney as a whole. This process takes place to a certain extent as the final result in all infectious diseases and in certain toxemias. As Warthin says, speaking of syphilis, "The price of immunity is fibrosis."

CHANGES DUE TO FIBROSIS

It is probable that the cycle from infiltration to fibrosis occurs rapidly in the kidney region. Autopsy reports on syphilitic children show that diminution in size of the kidney is a comparatively early symptom of syphilis. Warthin has made some wonderful sections of the kidney in very early syphilis showing spirochetae in the walls of the tubules and especially in the walls of the convoluted tubules and in the perivascular spaces, but autopsies in general on syphilitics show fibrosed kidneys. Warthin does not find spirochetae in a fibrosed area, but in an area where there is still an infiltration with lymphoid and plasma cells. But a definitely fibrosed kidney is an example of "damaged goods" and, as such, is liable to be affected by any of the ordinary toxic remedial agents somewhat in proportion to the extent of the existing fibrosis.

Children with congenital syphilis would be expected to be particularly susceptible to irritating syphilitic remedies because, except in very young babies, the stage of fibrosis would have been reached. During the last two years the writer treated twenty-five patients with congenital syphilis and of these, three had albuminuria at some time during the course of treatment. Quesliuer has made an interesting study bearing on this point. She traced the kidney history of one hundred congenital syphilitics for a period of many years and found that 40 per cent had developed acute nephritis at some time and mostly from very trivial causes. One patient, for instance, developed acute nephritis following two patches of impetigo.

Syphilitic nephritis, the kind occurring during the secondary stage of an untreated syphilis, is very rare. H. A. Christian states that he has only

* Read before the Dermatology and Syphilology Section of the California Medical Association at the fifty-eighth annual session at Coronado, May 6 to 9, 1929.